

## A weak El Nino develop by the year-end

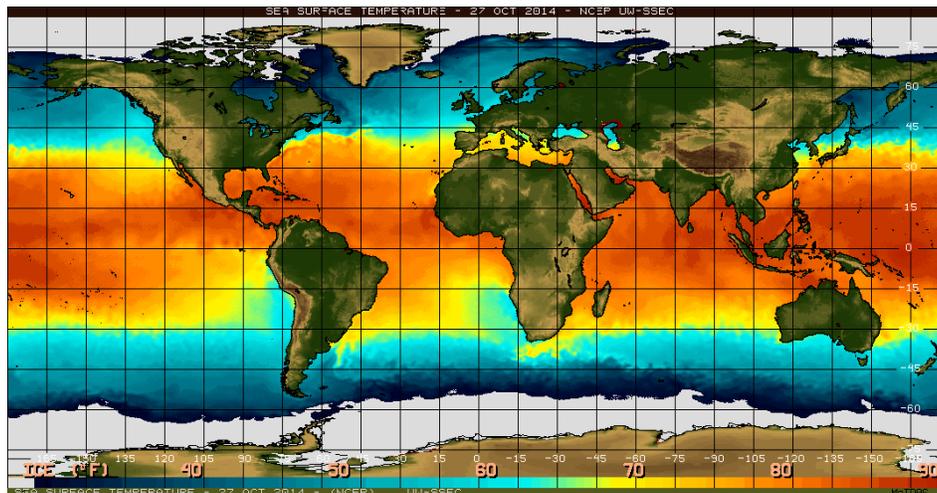
According to MDA Weather Services a weak El Nino will probably develop by the year-end (2014). While sea-surface temperatures are warmer than normal across most areas in the tropical Pacific Ocean, it still doesn't qualify as an El Nino, Kyle Tapley, senior agricultural meteorologist at MDA in Gaithersburg, Maryland said in response to e-mailed questions Oct. 20, 2014. Some additional warming could lead to the development of a weak El Nino, he said.

The Australian Bureau of Meteorology maintained its El Nino watch status this week, indicating at least a 50 percent chance of a late-season event. El Nino can move agricultural markets as farmers contend with drought in Asia or too much rain in South America.

"We are currently near the threshold of a weak El Nino, in what we call the positive neutral phase, where the waters are warmer than normal, but not quite warm enough to be classified as an El Nino," Tapley said. "It is likely we will see a weak El Nino develop by the end of this year."

(<http://www.bloomberg.com/news/2014-10-24/weak-el-nino-seen-evolving-by-year-end-as-sea-warmer-than-usual.html>)

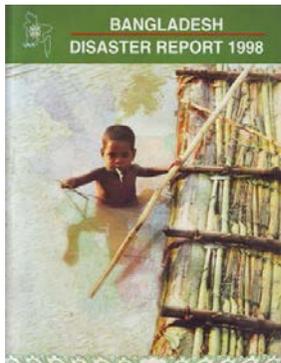
NOAA's National Weather Service says El Nino is favored to start by year's end and last into spring 2015. Forecasters favor a weak event.



Picture shows sea surface temperature in the equatorial Pacific Ocean (above). El Nino is characterized by unusually warm temperatures and La Nina by unusually cool temperatures in the equatorial Pacific. Anomalies (below) represent deviations from normal temperature values, with unusually warm temperatures shown in red and unusually cold anomalies shown in blue. (<http://www.elnino.noaa.gov/index.html>)

El Nino's, caused by periodic warmings of the tropical Pacific, occur every two to seven years and are associated with warmer-than-average years. The last moderate El Nino occurred in 2009-2010, according to the U.S. Climate Prediction Center, which predicts that a weak El Nino might still form in the next 30 to 60 days across the equatorial Pacific.

## What happen in the past : The Impact of El-Nino, La-Nina in Bangladesh



El-nina and La-nina cycles were thought to be responsible for the drought during the season of Amon paddy harvesting (1997), earth quakes in various regions in November, sudden swelling of the rivers in the mountainous areas and the cold wave throughout the country (1997-1998). It was feared that in the influence or El-nino, there would be lesser number of nor'westers in 1998. In 1997 it was assumed that despite rainy season sets in late there would be heavy rainfall resulting in flood which again would be followed by exorbitant cold. This sequence of events was followed almost literally in 1998.

The year 1998 is identified as a year of adversity for the whole year. Particularly, in the Asia-Pacific region, nature appeared to have assumed its deadliest aspect in this year. At the beginning of the year the whole of East Asia fell a victim to drought and aridity. Crops and trees in lacs of acre were burnt down in forest conflagration. Again, during the end of the year, almost all the countries in Asia had to sustain floods. It is rather obvious that Bangladesh too was affected by drought, aridity, cold wave and one of the deadliest floods she had ever experienced. This destructively terrifying variation in the weather pattern is considered by many people as the impact of the El-nino and La-nina cycles.

In the influence of the El-nino there was a severe drought in the months of Chaitra-Baisakh (April-May) in 1998. The amount of rainfall in the rainy season was unusually low. Rainy season behaved rather like early autumn. According to the meteorological office, from the 15<sup>th</sup> through the 26<sup>th</sup> of June the observation center rain gage showed that with the exception of Bogra, no other district in Bangladesh had normal rainfall. In Dhaka, only 80 mm rainfall was recorded instead of normal 397 mm. Similarly, in Rajshahi it was 83 mm instead of 298 mm, in Coming 98 mm instead of 497 mm, in Barisal 183 mm instead of 419 mm and in Satkhira 99 mm instead of 301 mm of rainfall was recorded.

The calamity was not restricted to drought and shortage of rainfall only. As soon as the ravages made by the El-nino was over, the La-nina treaded in carrying excessive rain, inundation and cold wave similar to that of 1997. The province that was disrupted most in these whims of nature is agriculture.

Among the three common types of rice in our country are Aush, Amon, and IRRI. Although the yield of the former two depends on the labor and capital of the farmer, Amon, the most important one requires considerable rainfall. At least seven showers (locally known as sauta) are required for the proper harvest of this crop. This requirement was not met in 1998 because of the La-nina and in consequence the entire peasant community had to sustain a major loss. The peasants who pass their days awaiting the harvesting season, were selling off their livestock to procure money as the agricultural yield had shrunk. Quite naturally, as the supply was greater than the demand, the price went downs. The El-nino and La-nina caused damage not only to the agriculture but also to the trade of fish culture. Excessive rainfall destroyed the fisheries. The El-nino and La-nina are now being identified as the causes of earth quake, twisters, tornadoes, forest conflagration and excessive rainfall.

The aggression of El-nino and La-nina would not be confined to natural havoc only. It was believed that this adverse weather would initiate the proliferation of diseases like malaria, cholera and tropical fever. The change in atmosphere caused by the El-nino gives a suitable weather for the germs of malaria to reproduce and spread more quickly. Diseases like cholera breaks out as epidemics in the places that had undement a drought. The death rate soars high very rapidly with these and other adversities.

Meteorologists have noticed that the El-nino approaches after every two to seven years. This sequence was maintained in the years 1953, 57, 63, 72, 76, 82 and 1990. But after 1990, the El-nino is found to have appeared in rapid succession. After its prevalence in 1995-96 it reappeared in 1997-98.

In about 70% of the cases the El-nino is immediately followed by the La-nina.

**Amount of rainfall in different places from 01.06.98 to 26.06.98**

Place	Normal rainfall	Rainfall in 1998
Dhaka	397 mm	80 mm
Comilla	497 mm	98 mm
Rajshahi	298 mm	83 mm
Satkhira	301 mm	99 mm
Barisal	419 mm	183 mm

Source: Bangladesh Disaster Report 1998 (Page 24)