Will El Nino benefit oil palm production in Ecuador?

A new perspective on a global climatic phenomenon

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Summary:

Ecuador is a major palm oil producing country in Latin America, with approximately 300,000 ha cultivated. The plantations located the western coastal area (region of Quinindé) present a unique form of leaf yellowing, locally known as \textit{amarillamiento secamiento}, which has been observed only in this part of the world. Several hypotheses have been tested to explain those symptoms (biotic, nutritional, and hydric) and the most plausible cause is the limiting annual insolation. The climatology of the Quinindé region is non optimal for the oil palm, with an average 800 hours of sunshine per year. Change in climatic conditions during El Niño results in a simultaneous increase of rainfall, sunshine and temperature during 14 to 18 months which benefits the oil palm as higher yields are obtained after disappearance of leaf yellowing symptoms. The effects of El Niño climatic phenomenon in 1982 and 1997 confirm this hypothesis. As a conclusion, it will be interesting to know if the 2015 El Niño episode confirms the positive effect observed in 1982 and 1997. We expect an improvement of foliage in 2016 and an increase in yield in 2016-2017.