

Summary for the public

El Niño Southern Oscillation (ENSO) is a naturally occurring climate event that has two phases categorised based on the Sea Surface Temperature (SST) in Central and eastern Pacific. When the SST is above average, it is El-Niño phase and below average is La-Nina. This study focuses on the influence of ENSO on various climate variables such as SST, precipitation and air temperature in the Pacific region. We demonstrated that during El-Niño, precipitation & SST increases in the central and eastern Pacific but decreases in the western Pacific. During La-Nina the opposite happens. Based on the air temperature analysis, it can be concluded that the Earth generally becomes warmer during El Nino years and relatively colder during La Nina years. ENSO has impacts on regional climates globally and in various sectors like agricultural productivity & disaster management. Hence, it becomes necessary to study its influence on climate variables to make informed decisions.