### Scholarly Research Journal for Interdisciplinary Studies,

Online ISSN 2278-8808, SJIF 2019 = 6.380, www.srjis.com PEER REVIEWED & REFEREED JOURNAL, NOV-DEC, 2020, VOL- 8/62



#### EL NINO AND LA NINA

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### **Introduction:**

The phrase "El Nino" refers to the Christ Child and was coined by fishermen along the coasts of Ecuador and Peru to describe the warm ocean current that typically appeared around Christmas time and lasted for several months. El Nino is a disruption of the ocean atmosphere system in the tropical Pacific having important consequences for weather around the globe. La Nina is characterized by unusually cold ocean temperatures in the Equatorial Pacific compared to El Nino which is characterized by unusually warm ocean temperatures in the Equatorial Pacific. For hundred of years the first record 1567 South American fishermen have noticed the appearance of warm waters in the eastern pacific Ocean along the coast of Ecuador and Peru. The phrase La Nina is Spanish for the girl and sometimes called El Viejo old man It is characterized by unusually cold ocean temperatures in the equatorial Pacific. In comparison El Nino is characterized by unusually wamm ocean temperatures in the Equatorial Pacific.

# **Study Objectives:**

The present study has the following objectives, i) To study the Discussion of the Global Climatic Change and Role of El Nino & La Nina. ii) To understand in the effects of Global Climatic Change.

# Data Base & Methodology:

The data has been furnished from the related articles, research papers. Some data has furnished the websites & as well as time magazine. For the present research paper the primary and secondary sources have been used. Materials from various libraries have been collected. The areticles regarding to it have been read thoroughly. The descriptive and analytical research methods has been used for this research paper.

## Discussion of El Nino and La Nina:

El Nion is thought to occur due to changes in the normal pattems of trade wind circulation normally these winds move westward carrying warm surface water to Indonesia Copyright © 2020, Scholarly Research Journal for Interdisciplinary Studies

and Australia and allowing cooler water to upwell along the south American coast. Warmer water causes heat and moisture to rise from the ocean off Ecuador and Peru resulting in more frequent storms and torrential rainfall over these normally arid countries. La Nina is thought to occur due to increases in the strength of the normal patterns of trade wind circulation. Under normal conditions theses winds move westward carrying warm surface water to Indonesia and Australia and allowing cooler water to upwell along the South American coast. Comparison of Normal El Nino and La Nina Conditions.

## Various impact of El Nino and La Nina:

During an Elno year tropical rains usually centered over In donesia shift eastward influencing atmospheric wind patterns world wide. Possible impacts include a shifting of the jet stream storm tracks and monsoon producing unseasonable weather over many region of the globe.

During the El Nino event of 1982-83 some of the abnormal weather patterns observed included. Drought in Southern Africa Southern India, Sir Lanka, Philippins, Indonesia, Australia Southern peru, Western Bolivia, Mexico, Central America. Heavy rain and flooding in Bolivia, Ecuador, Northern Peru, Cuba, U.S. Gulf States. Hurricanes in Tahiti Hawaii.

# **Impact on Precipitation and Temperature:**

While typical impact of both El Nino and La Nina can be readily recognized it should be noted that these impact do not necessarily occur with any given El Nino or La Nina episode. Therefore impact noted below may not necessarily be caused directly by La Nina but appear consistent with the event. La Nina tends to bring nearly opposite effects of El Nino to the United States Wetter than normal conditions across the Pacific Northwest and dryer and wanner than normal conditions across much of the southern tier. The impacts of EL Nino and La Nina at these latitudes are most clearly seen in wintertime.

### **Conclusion:**

The El Nino and La Nina related patterns of tropical rainfall cause changes in the weather patterns around the globe.

## **Reference:**

http://www.wmo.ch/nino/updat..html#intro

http://www.pmel.noaa.gov/tao/elnino/nino-home.htm.

http://www.msc-smc.ec.gc.ca/education/elnino/index