

# EL NIÑO:

## CURRENT STATUS AND OVERVIEW OF POSSIBLE EFFECTS, SEPTEMBER 2012

### WHAT IS HAPPENING?

As of mid-September 2012, further development of the possible El Niño event is still unclear. The current patterns may weaken, but scientists think they are likely to continue to grow into a weak -strength El Niño event. This would impact disaster and health risks in many regions over the coming year, albeit not as forcefully as in a really strong El Niño event. Scientists are closely monitoring how global rainfall will respond to this weak event, and further information will appear in [seasonal forecasts](#) over the next few months. This note will be updated monthly, and can be found on the [Climate Centre website](#).

### WHAT IS EL NIÑO?

An “El Niño” is when water in the equatorial Pacific ocean becomes warmer than average. When this happens, the atmosphere above the ocean also reacts. Changing wind patterns push rainclouds away from where they usually are, and we see **unusual rainfall in many places of the world**. Effects can include changes in storms, floods, landslides, fires, shifts in fisheries, abnormal cropping seasons, and increased incidence of disease.

See **page 2 for a global map** of changes in rainfall that are typical during an El Niño, and the months when regions can expect these changes to happen. An El Niño event can last for 12 months, recurring every 2-7 years.

#### Examples of El Niño Effects

- Unusually heavy rainfall in Peru and southern California during El Niño years has caused floods and landslides.
- In Indonesia, El Niño-related drought has caused forest fires and resulted in serious air pollution problems.
- In Southern Africa, El Niño-related drought has caused crop failures and food insecurity.
- Fisheries in Peru struggle during El Niño years due to the warmer waters off the coast.
- El Niño-related drought in Papua New Guinea destroyed the sweet potato crop in 1997.

However, every El Niño event is different, and scientists pay close attention to the ocean temperature and the atmosphere in order to **predict what rainfall will be like this year**. The monthly **seasonal forecast** shows what scientists are predicting for the [next few months](#).

### WHAT DOES THIS EL NIÑO MEAN FOR HUMANITARIAN WORK?

Unusual rainfall patterns, storms, fires, and changes to livelihoods and disease incidence can cause humanitarian emergencies. Seasonal forecasts can be used ahead of time to identify areas of increased risk and **prepare for potential emergencies**, and take measures as the Red Cross Red Crescent Movement alongside governments and communities to prevent loss and suffering.

### WHAT EARLY ACTION CAN I TAKE?

If you work in a region that is highlighted in the seasonal forecast or in the map on page 2, we recommend:

1. **Contact your local meteorological department** and make sure to receive their seasonal, weekly, and daily forecasts for your country/region. This will help monitor the rainfall situation as it evolves on the ground.
2. Hold meetings at the national and regional levels to discuss how to prepare for possible El Niño effects. Partners may include national disaster managers, health agencies, and UN agencies.
3. Identify people and locations that might be **most vulnerable** to the changes in rainfall that are being predicted. Contact relevant branches to activate or develop **contingency plans** linked to the risk of lower or higher rainfall for that location.

### FURTHER QUESTIONS?

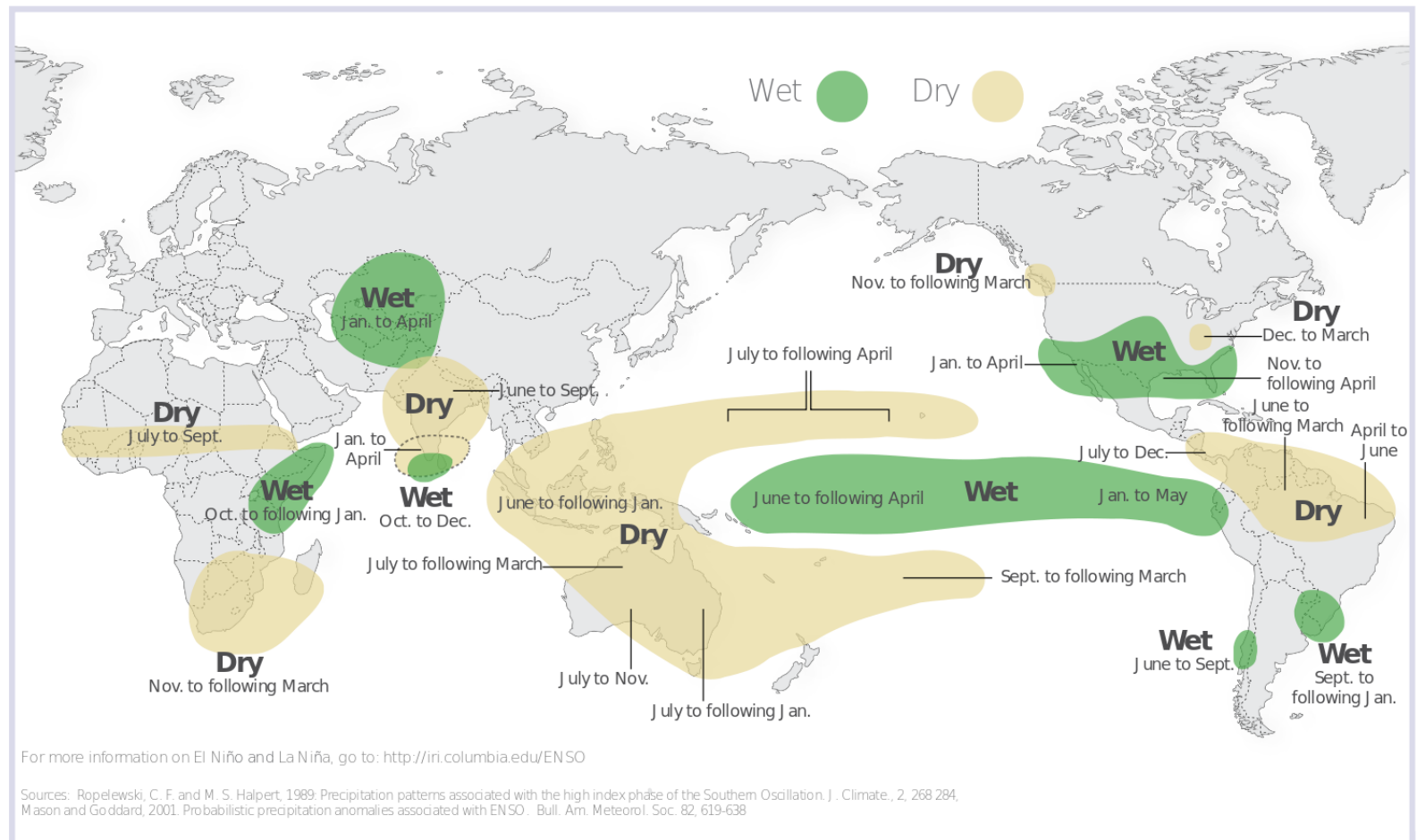
Please contact the IFRC climate helpdesk: [ifrc@iri.columbia.edu](mailto:ifrc@iri.columbia.edu), or [climatecentre@climatecentre.org](mailto:climatecentre@climatecentre.org).

## RESOURCES AND EXAMPLES

- More information on El Niño: <http://www.youtube.com/watch?v=7FVZrw7bk1w>
- IFRC Low rainfall and/or drought checklist for National Societies: <http://www.climatecentre.org/downloads/File/EWEA/Final-DROUGHTCHECKLIST%2001%2008%2012.pdf>
- Early Warning Early Action handbook: <http://www.climatecentre.org/downloads/File/reports/Early%20Warning%20Early%20Action%202008.pdf>

## El Niño and Rainfall

El Niño conditions in the tropical Pacific are known to shift rainfall patterns in many different parts of the world. Although they vary somewhat from one El Niño to the next, the strongest shifts remain fairly consistent in the regions and seasons shown on the map below.



For more information on El Niño and La Niña, go to: <http://iri.columbia.edu/ENSO>

Sources: Ropelewski, C. F. and M. S. Halpert, 1989: Precipitation patterns associated with the high index phase of the Southern Oscillation. *J. Climate.*, 2, 268-284.  
Mason and Gouddard, 2001: Probabilistic precipitation anomalies associated with ENSO. *Bull. Am. Meteorol. Soc.* 82, 619-638