

Queensland Flooding Exploited – But Part of Normal Pattern

Just two years ago the headlines were bewailing the severe drought in Queensland. Environmentalists exploited the situation with threatening headlines like, “*Queensland's Drought-Parched to drink Purified Sewage.*” The stupidity of this is many people drink purified sewage water.

<http://www.greendiary.com/entry/queenslands-drought-parched-to-drink-purified-sewage/>

A more reasonable but still threatening title said, “*The Drought Deepens*” <http://www.pomigrate.com/the-drought-deepens/>

Today’s headlines are equally menacing. The BBC claim, “*Australia’s Queensland faces ‘biblical’ flood.*”

<http://www.bbc.co.uk/news/world-asia-pacific-12102126>

Australian Greens leader Bob Brown made the ridiculous charge that, “*the coal-mining industry should foot the bill for the Queensland reconstruction efforts, claiming its operations were indirectly responsible for the floods, because global warming caused by fossil fuels meant the atmosphere could hold greater amounts of moisture, leading to bigger and more intense rainstorms.*” (Science in the News, Jan 16, 2011).

Proponents of human caused global warming didn’t miss the opportunity. They are environmental and scientific practitioners of Rahm Emmanuel’s dictum, “*Never let a serious crisis go to waste.*”

<http://online.wsj.com/article/SB123310466514522309.html>

Of course, their advantage is the practice of portraying natural events as unnatural and catastrophic. It means they never run out of crises.

El Nino/La Nina

The swing from drought to flood is part of the natural order in Queensland. They’re driven by reversing ocean currents that alternately create El Nino then La Nina patterns. They’re Spanish names because they first recorded them. Pacific People knew them and the associated weather patterns. Figure 1 shows the general conditions. When Sir Francis Drake sailed into the Pacific in 1579 he gathered information about the currents and took Morera, a Spanish navigator, with him. After sailing ships disappeared, concern and knowledge of the winds and currents were essentially forgotten.

It came back into weather and climate research in the 1960s resurrected by Jacob Berknes. He identified one portion, a large circulation cell, first identified by Sir Gilbert Walker that he called the Walker Circulation (Figure 2). This is the El Nino half of a cyclical system that hit the headlines

in 1983 when it moved to the northern edge of its long-term average latitudes and hit California.

<http://www.cbs8.com/global/story.asp?s=11848719>

It quickly became the explanation for changing weather patterns. It was the climate phenomenon flavor of the month. In the natural sequence it was followed a strong La Nina event in 1988. The public was just becoming familiar with El Nino when they had a new flavor. Many thought these were new phenomena caused by global warming. They quickly became part of weather forecasting in those countries directly affected such as Australia.

<http://reg.bom.gov.au/climate/ahead/ENSO-summary.shtml>

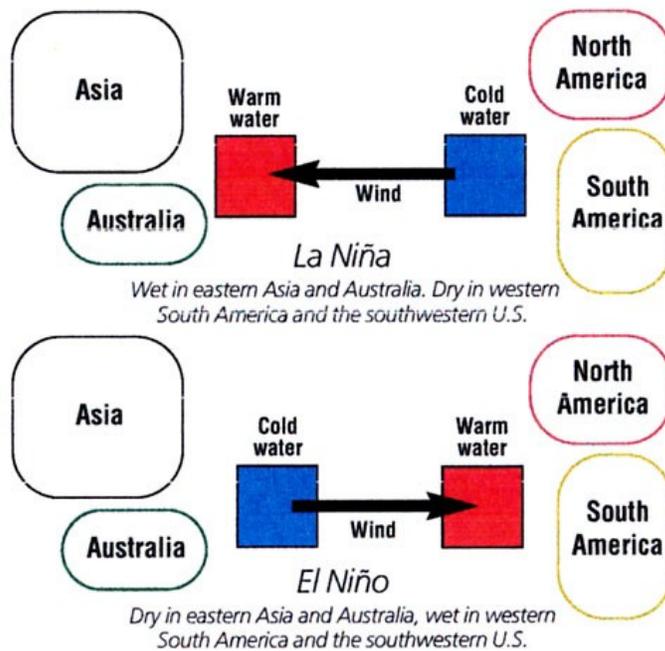


Figure 1: Schematics of La Nina (top) and El Nino (bottom).
Source: Author.

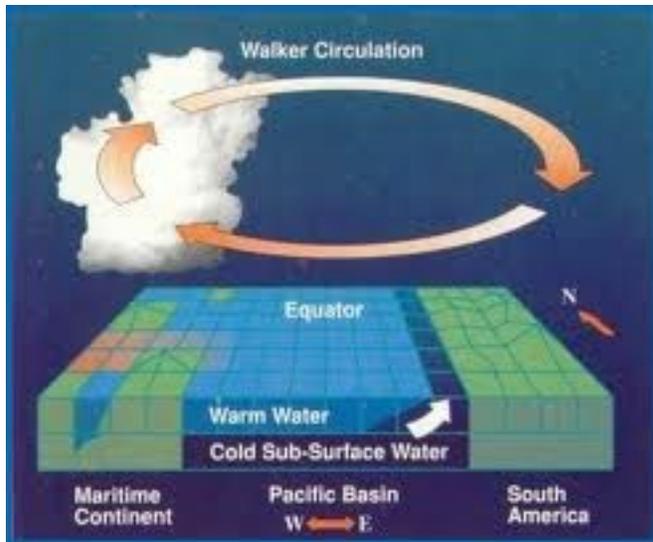


Figure 2: Walker Circulation (El Niño)
geoinfo.amu.edu.pl

QuickTime™ and a decompressor are needed to see this picture.

Figure 3: El Niño Southern Oscillation Index (ENSO) 1950-2010
 Source: http://www.esrl.noaa.gov/psd/enso/enso.mei_index.html

Figure 3 shows the fluctuations in the El Niño Southern Oscillation Index (ENSO). This is a measure of the changing pressure pattern between Darwin, Australia and Tahiti. It illustrates how the swing from one condition to another goes on all the time.

Wind blows from High pressure to Low pressure. As the wind blows across the oceans, it creates currents. El Niño/La Niña are defined by a reversal of ocean currents, therefore the wind must reverse. There is a big gap in climate research because there is no understanding of the mechanism that causes the pressure reversals. A major reason is because the most plausible research shows the relationship between sunspots and El Niño.

<http://www.john-daly.com/sun-enso/sun-enso.htm>

The Intergovernmental Panel on Climate Change (IPCC) only related

changes to ocean water temperatures, but that begs the question. They can't consider the sun because their bias is to only consider human causes of climate change.

Although the Greeks understood climate, the concept faded until the early part of the 20th century. When it returned, the focus was simplistic with only average conditions calculated. It remained that way until the 1970s when climate became an issue, as cooling (which began in 1940) was creating geopolitical concern. Application of trends became common practice in the social sciences, especially economics as societies burgeoned and grew. Climate science continued with trends except after the mid 1980s it was a warming trend. It continues today and the analyses of the Queensland floods illustrate the problem. IPCC members like Kevin Trenberth infer they're of greater magnitude than previously because of human induced warming.

<http://wattsupwiththat.com/2011/01/13/and-you-knew-it-would-be-said-oz-floods-due-to-global-warming/>

Or as Bill Patzert of the Jet Propulsion Laboratory said, *"The solid record of La Niña strength only goes back about 50 years and this latest event appears to be one of the strongest ones over this time period," "It is already impacting weather and climate all around the planet."*

<http://www.nasa.gov/topics/earth/features/strong-la-nina.html>

Wet And Dry Cycles

I chaired the first attempt to establish a management strategy for the Assiniboine River and drainage basin in Canada (Figure1). As usual it was an extreme event that triggered a conflict – it was typical of the ongoing practice of crisis management. The extreme was caused by the drought across western North America in 1988/89 that was in the same pattern of the 1930s drought. Conflict developed when water flow in the Assiniboine River reached the lowest flow in 94 years of record. In 1996 the worst flood in 101 years was recorded. It was valuable because I could more easily convince Board members that any strategy must consider the extreme variability.

Engineers and hydrologists, among others, deal with what is called the recurrence frequency. When planning they determine what level of natural events will set the limit for their design. It are described as a one-in-100 event, but the second number can have any value. Usually the design is limited by the length and accuracy of the record and cost. The difficulty is, if an event exceeds the limit, then the disaster is exacerbated. The approach assumes the record is adequate in length, which it isn't. It assumes the range

of the record is consistent because they assume the weather is the same over long periods of time. All this ignores the third critical measure of statistics, the variation. Global warming alarmists have claimed the weather is more variable, but more variable than what. Variation changes occur all the time and has increased because of cooling not warming as the cold air of Antarctica expands.

There are human factors involved in the Brisbane flooding. Apparently a dam designed for flood control was allowed to fill with limited release. *“We need a full inquiry into why this dam managed by SEQ Water, and others managed by Sunwater, were managed in a way that actually produced the kind of flood it was designed to prevent.”*

<http://regionalstates.wordpress.com/2011/01/13/brisbanes-man-made-flood-peak/>

Another problem, learned from our research of the Assiniboine Basin, was the pattern caused by the wet and dry cycle, as in Queensland. During wet periods, demands are for flood control by dams and drainage ditches. In dry periods the demand is opposite. Now storage and prevention of runoff is required. These systems can serve dual purposes but it requires knowledge of the extremes and management that anticipate the swing from one to another. This is limited by the failure to understand that the records used are totally inadequate in length, trend and variability. I am grateful to Professor Stewart who drew attention to three papers that address the problems. His 2004 paper, *“Multi-decadal climate variability, New South Wales, Australia.”* A joint paper with Danielle Verdon, *“Long-term behaviour of ENSO: Interactions with the PDO over the 400 years inferred from paleoclimate records”* And a third paper with Anthony Kiem and George Kuczera titled, *Multi-decadal variability of flood risk.”*

Living In High Risk Zones

Finally, there is the problem of people being allowed to live in high-risk zones, such as flood plains. Often these zones are ill identified because of the lack of understanding of the true cyclical climate pattern. Maybe people shouldn't be allowed to live in flood plains, especially at the first flood stage level, but that's another subject.