

Climate Change - Is it already happening?

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The year 2011 started with more than a million people living in the eastern part of Sri Lanka displaced by the floods; at least 40 people have died. Such is the devastation caused by the floods that the economic cost could amount to 500 million USD. The end of 2010 noted the heaviest rain in 18 years in the western part of Sri Lanka, leaving 36,000 families homeless and submerging the country's Parliament under four feet of water. If you recall, the first quarter of 2010 recoded the warmest days in Sri Lanka. Overall, the frequency of droughts, heavy rains, floods, earth slides has increased geometrically. So called 'natural disasters' seem to be happening at very short time intervals.

The phenomenon is not unique to Sri Lanka. Let's take a quick tour of the world in disaster.

The recent floods in Brazil were due to the largest rainfall since 1967. Floods and mudslides in Brazil killed over 750 people and the damage is estimated at 1.2 billion USD. The 2010-2011 flood disaster in Queensland affected 70 towns, and 200,000 people, flooded major parts of the capital city Brisbane including the Central Business District, and cost 13 billion USD. The Queensland floods could be the country's most expensive natural disaster ever according to Australian government estimates.

The 2010 floods and landslides in China killed about 3,200 people. About 1.36 million houses were destroyed, more than 230 million people were affected and 15.2 million (roughly 3/4ths of the population of Sri Lanka) had to be evacuated. A total of and more than 97,200 square kilometers of crop land equivalent to one and a half times of the landmass of Sri Lanka was inundated. The total damage from the floods was roughly 41 billion USD.

The heat wave during the summer of 2010 was at its worst in June over the eastern United States, Middle East, Eastern Europe, and European Russia, over Northeastern China and southeastern Russia destroying 1/3 of the Russian wheat crop in fires. June 2010 marked the fourth consecutive warmest month on record globally, at 0.66 °C above average, while the period April–June was the warmest ever recorded for land areas in the Northern Hemisphere at 1.25 °C above average. In August, a section of the Glacier connecting northern Greenland and the Arctic Ocean broke off, the biggest ice shelf in the Arctic to detach in 48 years.

The hottest temperature ever recorded in Asia was reached in Mohenjo-Daro, Pakistan at 53.5 °C, on May 26, and twelve cities in Pakistan saw temperatures above 50°C. The previous record for all of Asia was 52.8 °C on June 12, 1919. On the other hand the 2010 Pakistan floods began in late July 2010 following heavy monsoon rains making 24 million homeless. At one point, approximately one-fifth of Pakistan's total land area was underwater with a death toll close to 2,000. The number of individuals affected by the flooding exceeded the combined total of individuals affected by the 2004 Indian Ocean tsunami, the 2005 Kashmir earthquake and the 2010 Haiti earthquake!

As predicted by the scientists in 2009, the year 2010 became the hottest recoded year on earth until October. However the situation changed with the arrival of La Niña in November. The 2010 winter arrived particularly early for Europe with temperatures dropping significantly lower than previous lows for the month of November. On 28 November, Wales recorded their lowest-ever November temperature of -17.3 °C and Northern Ireland recorded their lowest ever November temperature of -9.5 °C.

The Australian floods are caused by what is one of the strongest – if not the strongest – La Niña (cyclical cooling of the Pacific Ocean) events since records began in the late 19th century. La Niña has the opposite effect as her brother El Niño, but both occur every two to five years and are instrumental in driving extreme weather across the planet. Last winter El Niño contributed to record-breaking precipitation and flooding in some parts of the United States. This year's La Niña event could be one for the record books, according to new satellite data from NASA.

After checking the above, if there is anyone who doubts that climate change exists and that it is going to affect, attack and destroy things, people and dreams across the planet without any consideration for class, creed or race, they need to make an appointment with a psychiatrist – and fast.

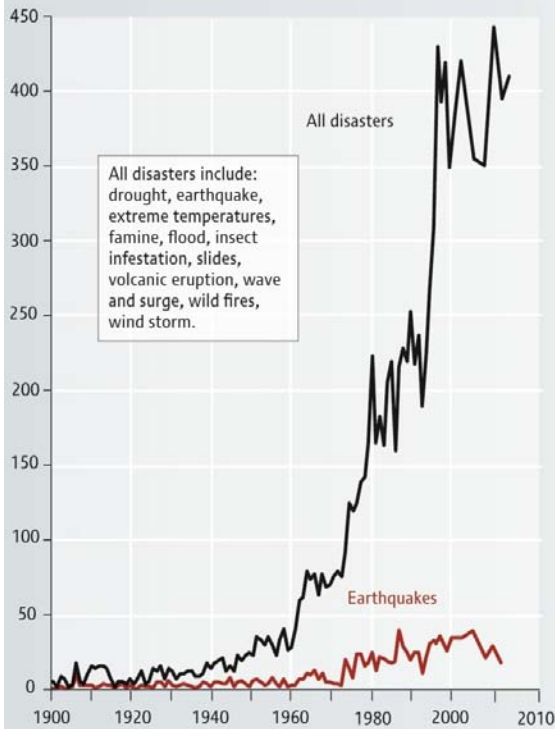
That much maligned, widely doubted but truly knowledgeable group of human beings also known as scientists have, for the umpteenth time, raised grave concerns about the connection between human-made global warming from greenhouse gas (GHG) pollution and extreme weather events such as floods and drought. The World Meteorological Organization stated that the heat waves, droughts and flooding events fit with scientific predictions based on global warming for the 21st century, although still no specific weather events can be linked directly to climate change.

From those who doubt that global warming is really happening, we ask for any alternative, rational, researched alternatives for the record level rainfall and floods that are occurring. There are none. Global warming increases sea temperature and increases evaporation resulting in increased precipitation. When humans burn fossil fuel it emits carbon to the atmosphere disturbing the natural carbon cycle. All natural biological cycles on earth are in a dynamic equilibrium that varies with time within a margin of tolerance. When this equilibrium is disturbed the variations increase and, as a result, both the frequency and magnitude of variations increase causing extreme conditions and increase the potential for large scale, high impact, destructive “natural” events.

The risks are gathering momentum now, scientists say, due to rising temperatures in the atmosphere which has made weather patterns more volatile. It is very likely that human activities have caused most of the global warming observed since 1950. There is greater than 90% certainty that increases in greenhouse gas emissions have caused most of the global warming since the mid-20th century. International research shows that it is very unlikely that the observed warming could be explained by natural causes alone. Evidence of human influence has been detected in ocean warming, sea-level rise, continental-average temperatures, temperature extremes, and wind patterns. It is certain now that these weather patterns would not have occurred if atmospheric carbon dioxide was at pre-industrial levels.

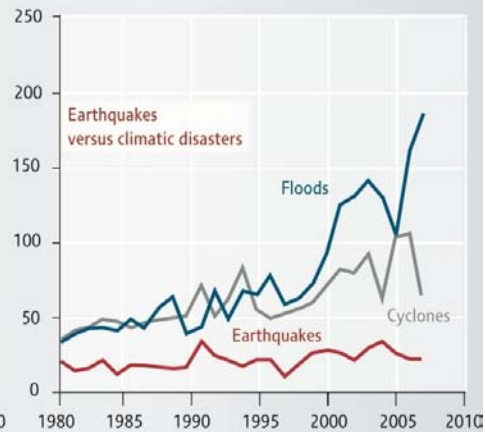
It is time to realize that climate change is a reality, and, more importantly, that you, whoever you are, whatever you do, however rich you are, however powerful you think you are, could very well be the next “unit” to be “added” to “victim statistics” that will be “discussed” at next year’s round of “conferences” so, get with it and try to do something less contributory and more mitigatory, right now.

Number of disasters per year



Trends in number of reported disasters

Much of the increase in the number of hazardous events reported is probably due to significant improvements in information access and also to population growth, but the number of floods and cyclones reported is still rising compared to earthquakes. Is global warming affecting the frequency of natural hazards?



Source: CRED Annual Disaster Statistical Review 2006, 2007.