search engines like *Google* now make it easier to download files free and fast on mobile phones/iPads, while providing prospects for copying without remorse. No journal is immune to plagiarism since the foundation of wrong doing basically lies within the individual scientist's choice to uphold responsible intellectual honesty, straightforwardness and truthful conduct.

Most science writers are often scientists; hence they become instant teachers. Subsequently, students flock around them to learn the art of scientific writing and other techniques needed to shine in the scientific world. Therefore, it is absolutely fundamental for scientists to uphold truthfulness at all cost and at all times. Besides, they should set an example of honesty in their chosen field of expertise. It is perhaps the only way to go forward to tackle the plague of plagiarism in a long run. In the meantime, scientific writers can wish for one thing as the American author Ernest Hemingway once wrote, 'All you have to do is to write one true sentence'.

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# Effect of El Niño on southwest monsoon rainfall and agriculture in India

The southwest (SW) monsoon (June–September) impacts over 1.7 billion people of the Indian subcontinent and is crucial for the agriculture-dominated economy of India. Weather prediction agencies from all over the world forecast El Niño conditions in 2014 with imminent danger of drought. The frequency of such events has been high in the last decade with droughts in 2002, 2004 and 2009. El Niño-like conditions leave countries like India, Indonesia and Australia drier, increasing chances of wildfires and lower crop production, while leading to heavier rainfall in the eastern Pacific and South American nations, raising the spectre of floods and landslides. India is expected to be the first to suffer, with weaker monsoon rains, undermining the nation's fragile food supply. El Niño is a weather condition that occurs when surface temperatures in the Pacific Ocean continuously rise above average for several months, which in turn affects wind patterns and triggers floods and droughts in different parts of the world. Usually, average increase of more than 0.5°C during a specific duration culminates in the El Niño effect and the current forecasts indicate that this year's warming will most probably lie between 0.5°C and 1.5°C (ref. 1). On an average, El Niño occurs every 3–5 years, often begins to form during June–August, and typically lasts 9–12 months. The latest El Niño prediction has come from the European Centre for Medium-range Weather Forecasts (ECMWF), which is considered to be one of the most reliable prediction centres around the world[1]. According to their prediction, the amount of warm water in the Pacific is now significant, perhaps the biggest since the worst El Niño of 1997–98 which is regarded as the biggest such event of the 20th century that caused widespread droughts in the tropics leading to forest fires, with an estimated economic loss exceeding 20 billion USD in Southeast Asia[2]. The El Niño produced the hottest year on record at that time and had major global impacts, including a mass die-off of corals. Various findings indicate that El Niño likely improves the global mean soybean yield by 2.1–5.4%, but appears to change the yields of maize, rice and wheat by –4.3% to 0.8% (ref. 3).

India Meteorological Department (IMD) has forecast a 60% probability of El Niño in 2014 along with a below-normal monsoon projection. The SW monsoon is more important as it accounts for over 75% of the annual rainfall in most parts of India. The country had 43% deficit in rainfall in June, which was reduced to 22% by the end of July 2014. Overall, monsoon was 90.3% of normal in July. But, the worrying factor is the higher rainfall deficit of 58% and 54% in Punjab and Haryana respectively, which are considered as the graneries of India. Among all the regions, northwest India reported the highest rainfall deficiency of 34% followed by 26% in the east and North East. The central region reported 12% deficiency, while the South Peninsular region had 19% rain deficit by the end of July. There is a strong relation between El Niño and Indian droughts since 1950, as the country has faced 13 droughts and 10 of these were in the El Niño years[4].

It may be worth noting that since 1980, all the six droughts faced by India were in the El Niño years, but still not all El Niño years led to drought in the country. Since 2000, there were four El Niño years (2002, 2004, 2006 and 2009), and three of these (except 2006) resulted into drought years. The year 2006, which was an El Niño year, however, received normal monsoon rainfall. This situation has been explained by the phenomenon of equatorial Indian Ocean oscillation (EQUINOO)[5]. EQUINOO plays an important role in the inter-annual variation of the SW monsoon and it involves a see-saw like situation between a state with enhanced rainfall over western equatorial Indian Ocean and suppressed rainfall over eastern equatorial Indian Ocean (favourable phase) and another state with opposite signs of east-west rainfall anomalies. The ultimate precipitation of the monsoon appears to depend to a large extent on whether the phases of El Niño and EQUINOO are favourable or not. In the six El Niño years, EQUINOO was unfavourable and thus leading to droughts. On the contrary, favourable phase of EQUINOO in 1963, 1997 and 2006 negated the effect of El Niño and resulted in higher rainfall. But this relation appears to have strengthened

in the last 14 years as out of the four El Niño years globally, three resulted in droughts in India. The drought of 2002 is a classic example of a strong El Niño phenomenon as the SW monsoon rainfall in India dropped by more than 19% from its long period average. Consequently, foodgrain production decreased by 18% and agriculture GDP dropped by 7% causing a loss of 8 billion USD.

According to the researchers at University of Reading, UK, El Niño could be quite devastating for agriculture and water supply in India as two-thirds of Indian farmland lack irrigation and rely solely on rainfall[6]. El Niño resulting in deficit rainfall tends to lower the production of summer crops such as rice, sugarcane, cotton and oilseeds. The ultimate impact is seen in the form of high inflation and low gross domestic product growth as agriculture contributes around 14% to the Indian economy[7]. In the past, the impact of severe droughts has remained between 2% and 5% of our GDP[6]. According to the report of the Associated Chamber of Commerce and Industry of India, about 5% deficit in rainfall due to possible El Niño factor could have a bearing on economic growth by 1.75% costing about Rs 180,000 crores in the 2014–15 fiscal[8]. With every 1% deficit in rainfall, the country's GDP falls by 0.35%, as 60% of net sown area of India is rainfed.


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# Not just subjective, but also sloppy – a response to Bhadra

We read Bhadra's rejoinder[1] to our letter[2] with interest and disappointment. Not only has she failed to counter the main criticisms of our response to Majumder *et al.*[3], she has made fairly serious allegations of scientific impropriety on our part. She has also alleged that we have inflated figures of dog bite cases in India by three orders of magnitude. Unfortunately, her conclusion is flawed and arises from a misreading and misunderstanding of both our original statement as well as the primary literature that was cited.

In her rejoinder, Bhadra has alleged that 'Vanak *et al.* have conveniently converted 17,137 to 17 million, and this increase by three orders of magnitude cannot be a typographical error' and further states that 'It is alarming and at the same time depressing to see such blatant misrepresentation of data'.

Instead, in our article we state that '…that the "part" of the human population that they are referring to is an estimated 17–20 million Indians/year that suffer from dog bites. Tragically, this results in a person dying from dog-contracted rabies every 30 min'.

Thus, we find her allegations baffling. We are clearly referring to the number of dog bite cases as 17 million, which is derived from Sudarshan *et al.*[4], and not the number of rabies cases (which at 1/30 min/yr = ~17,500).

Bhadra has confounded these two issues. She has taken the cases of annual rabies in India and converted them to dog bite cases in her claim that 'This is also substantiated by that data provided by Sudarshan *et al.*, that 2 in every 100,000 humans are bitten by dogs every year'. Sudarshan *et al.*[5], actually report 2 in 100,000 as being the annual incidence of rabies. She seems to have also neglected to fully read the two additional citations she refers to, which state similar figures. Menezes[6] provides an estimate of 15 million dog bite cases in India, while Sudarshan[7] states that 1.7% of the population is affected by dog bites annually. Thus, the error in reporting numbers is not at our end, but rather on Bhadra's, and her accusation of scientific impropriety is completely unwarranted.

Bhadra has also failed to address the major criticisms we presented, often obfuscating or self-contradicting herself in her response. For example, she states that 'In IISc too, reports of dog–human conflict are not rare, and there are several instances of people being chased by dogs', as a justification for choosing this site for her study. However, Majumder *et al.*[3] claim that they found no evidence for such dog–human conflict inside IISc campus. Bhadra attempts to justify this as well, by saying that '…1941 dogs would be a small percentage of the total population, which explains why we could have missed out a few rare cases of dog–human aggression during our surveys'. So is dog–human conflict rare or not? We would also like to reiterate that the data sampling by Majumder *et al.*[3] is flawed, since samples are non-independent. However, this is eclipsed by the other problems in the paper.

We do not wish to belabour these points any further, but we do urge