is that – which indexes should be used for assessment?[5]

IF has one specific meaning: it is a clear measure of the extent to which a given journal functions as a connector of researchers in a specific field. This is one (but only one) critical function of medical journals[8]. Authors should submit their research results and manuscripts to journals that are easily available and are read by their peers (the most interested audience) and pay less attention to journal impact factors[7].

A more informed and balanced judgement on the part of the expert committees for selection, appointment and promotion of individuals or for assessment and accreditation of institutes, is required until a more concrete index or formula is devised.

This being the status, it is quite but natural for many across the country to express their concern and doubts as to whether the medical research in the country is properly evaluated or not and thereby the institutes are justly graded/accreditated or not. I must congratulate Balaram[1] for disseminating such thought provoking and wisdomful editorial which certainly does its share of contribution in sensitizing the minds of our researchers and policymakers.

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Double-blind review process

Nature Geoscience and *Nature Climate Change* have recently announced that they will adapt a double-blind review process, which means, that authors of a study will be kept anonymous, just like how reviewers names are not revealed to the authors[1]. They will adapt this process initially on a trial basis, which is currently effective. This initiative was taken after a survey was conducted in June 2012, where 27,137 people were invited for a feedback; however, they received 1002 responses between 6 and 22 June 2012 (ref. 2). It was astonishing to know that a majority of people have shown a common interest a peer review under double-blind conditions, where both referees and authors are kept anonymous. The survey results show that three-quarters of respondents agreed that double-blind peer review is a worthy exercise, where only 16% disagreed[1]. They further specified that generally female authors are subjected to a harder peer review than their male colleagues[1,3]; thus, if the first author is unknown, this bias will be largely removed.

The double-blind review system is said to increase the accountability and remove any bias, which is generally hard to achieve through a traditional review process where the reviewers can have several conflicts of interest that could easily sway their decision. This is because, generally, reviewers are chosen from a similar area of research as the submitted manuscript. Thus, if working on a similar research problem, they might reject the paper or delay its publication[4]. Similarly, junior researchers may also be reluctant to criticize the work of their senior peers. Thus with anonymity, such bias may not be apparent[5].

A double-blind peer review could also help remove the bias in getting funds for a project. The different projects are also peer-reviewed by experts, however, as with the research publications; the chances to get biased responses are multiple. Therefore, it would be a great idea if a double-blind-peer review is also adapted here. It is true, that unlike papers, the projects are generally assessed based on the qualification of an applicant, which has to be mentioned, however, if just the name of the applicant is kept anonymous, it will serve the purpose. Therefore, the review process will be fruitful and it will help the right applicant to get funds.

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Cherish investigation or perish: role of law in earthquake forecasting

The verdict of an Italian court read that a group of seismologists was guilty for wrong prediction of the impending L'aquilla earthquake which killed 309 people on 6 April 2009 and sentenced them to prison. A question was asked to them whether an earthquake will occur due to the many foreshocks that were observed in the previous months. Their investigations showed that there will not be a big earthquake, which was later found wrong and hence a punishment was announced. This is being debated among seismologists and other scientists globally.

Prediction of an earthquake is difficult and research is done on the basis of some precursors before an earthquake; but result of forecasting is still uncertain. Under such a situation there is a problem of forecasting vis-a-vis a law of the land. It is expected that science and law will intersect more frequently in future[1]. I narrate a similar issue which needs rethinking about existing laws.

I got a call around 5.10 pm (IST) on 12 September 2007 at my office (at CSIR–NGRI) from a reporter of a TV channel that an earthquake of magnitude 8.5 (epicentre location 4.517°S, 101.382°E; IST 16 : 40 : 26) has occurred in the southern Sumatra subduction zone (near Bengkulu). He was curious to know whether this earthquake will produce a tsunami which will reach the east coast of India, like the 26 December 2004 tsunami, which had killed about 250,000 people. More than 10,000 people also lost their lives in India. In this background he was questioning me about the probable time of the tsunami and the possibility of it hitting the Indian coast. I replied based on my pre-calculations that if the earthquake generates a tsunami it will take more than 2 h for it to reach the Indian coast. However, I asked the reporter to give me about 20–25 min to answer the other question, i.e. whether the direction of the tsunami will be towards India or not.

A tsunami modelling group was established at CSIR–NGRI after the great tsunamigenic earthquake of 26 December 2004. Immediately after the 12 September 2007 earthquake, this tsunami modelling group[2] analysed the problem on the basis of earthquake parameters of previous earthquakes in that area and found that this earthquake may produce a tsunami but it had the directivity towards open ocean; thus there was no possibility that the tsunami will hit the Indian coast. After about 25 min, the same reporter telephoned me to know my views on the expected tsunami. I explained to him that this tsunami is not moving towards the Indian coast, rather it is heading towards open ocean. This news was being telecast live by the TV channel to the viewers, particularly to Indian viewers. I was fully aware of its consequences if our forecast was found wrong, but strongly believed in our calculations.

Later using the USGS earthquake source parameters, tsunami propagation was prepared and was found similar to ours. Immediately we published our findings.

If the tsunami had propagated towards the Indian coast instead of open ocean contrary to our forecast being telecasted live on TV, then it could have had dire consequences. On the other hand, our analysis helped thousands of people from being evacuated. As of now, there are no clear laws for such issues. However, there are many circumstances where such lawsuits come into force eventually after the catastrophe, which includes not only the earthquakes but also the establishment of nuclear power plants and the related safety issues with respect to earthquakes and tsunami. On the other hand, if a scientist predicts an impending earthquake with date and time and no such event occurs, it only creates unnecessary panic among people[3]. Government of various countries should frame a suitable law for a nonlinear science. The expectation of people from scientists is high, otherwise it will result in diminishing their public advisory role[4].

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Potential of social network and internet media for biodiversity mapping and conservation

Internet and digital technology has revolutionized the rate and efficiency with which data and knowledge are transmitted and shared among people. In particular, the social media such as Facebook, Google+, Twitter, Flickr, e-mail discussion groups, etc.[1], has shrunk the communication space like never before and has turned out to be powerful agents for obtaining rapid news updates. Their relatively easy access through computers, mobile phones and a host of other gadgets have made these very user friendly so much so they are probably the most frequently used technologies today. No wonder then an army of social networking sites are set afoot that transmit and share information on almost infinite number of issues ranging from archaeology to zoology or from sighting traffic offenders to stars in the night sky. Here, I discuss a specific case of how social network and Internet media can effectively be used in biodiversity mapping and conservation.

Social network and Internet media (SIM) has revolutionized Citizen Science projects, where volunteers are involved in research[2]. Though citizen science has a long history[3], in the last ten years due to increased affordability of digital camera and mobile phones, there has been tremendous increase in the number of citizen science initiatives globally[4], especially in North America and Europe[3,5,6]. The advantage of Citizen Science is its rapid collection of data and cost effectiveness in creating awareness and in enhancing education spatially and temporally.

Inventorying, mapping, monitoring the change in species diversity and composition and phenological process is vital to assess the impacts of anthropogenic activity and global change. However, inventorying and monitoring by trained scientists at large spatial scale is time consuming and is very expensive[7]. The