

*Discussion*

**Discussion on the paper entitled “Indian Contribution in the Field of Palaeo-oceanography (2006-2012)” by A K Gupta *et al.*, 2012. *Proc Indian Nat Sci Acad* Vol. 78, No. 3 (*IUGS Special Issue*) pp. 313-319**

**Discussion:**

**Serious Flaws in the Status Report on Indian Palaeoceanography**

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**Reply:**

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(Received 21 September 2012; Reply Received 20 February 2013; Accepted 27 February 2013)

Recently published status report on the Indian palaeocenography contains flaws of serious nature. At the outset, a status report is meant for providing a simplified and comprehensive reference material for several concerned scientific departments and decision makers, students, and peers in the field. Hence, status reports are expected to be accurate and comprehensive synthesis of published work in the given field of science. This fundamental requirement is totally missing in Gupta *et al.* [1].

In the abstract (reproduced below) Gupta *et al.* state that the said status report is based on the studies, which have utilized Ocean Drilling Program (ODP) sediment cores, whereas, the status report incorporates several published papers, which are based on sediment cores collected by several Indian researchers on-board the Indian research vessels. Thus, the abstract opens with incorrect information by grossly ignoring to acknowledge the efforts of Indian researchers in collecting study-material under harsh conditions.

*“Excellent studies have been carried by Indian scientists to understand palaeoceanographic changes in the Indian Ocean including the Arabian Sea and Bay of Bengal using Ocean Drilling Program cores. These studies revealed both short-term and long-term changes in the Indian Ocean circulation and Indian monsoon system. In general.....”*

Further, over 80% of papers referred in this status report are authored by one or more authors of the Gupta *et al.* Relevant studies published in reputed journals during the reporting period (2006-2012) by several other Indian researchers have been ignored. One of the authors of the Gupta *et al.* not only endorsed the above observations, but also raised a highly disturbing question about his own authorship in the Gupta *et al.* (see E-mail reply by one of the authors. I am not providing strings to this E-mail to preserve the privilege-of-privacy).

“In response to E-mail request from Gupta, I have sent couple of my recent papers to Devesh Sinha, which they have included in the report and made me co-author without my approval of the draft, even my

name is spelled wrongly. My opinion about this status report is: it is a compilation of selected researchers work, not a synthesis of paleoceanography research in India.”

Gupta *et al.* also contains material that could potentially lead to plagiarism. The complete abstract of a published paper (Naidu and Govil, 2010) [2] has been reproduced verbatim in this report, which is a serious issue involving scientific-ethics that has been of high concern of researchers world-over. I reproduce here both parts for convenience of the readers.

**Gupta *et al.*, p.315 under Teleconnection Sub-head:**

*“The transition from the LGM to the Holocene was an interval of climate variability that was characterized by large spatial and temporal variations. Naidu and Govil (2010) [2] showed that deglaciation warming in the northern Indian Ocean was initiated ca. 19 ka, which is contemporary with deglaciation warming in the Antarctica and Southern Ocean. A gradual warming occurred during the glacial/Holocene transition in the northern Indian Ocean, unlike the two-step warming seen in Greenland and the North Atlantic. Synchronous deglacial warming ca. 19 ka in Antarctica and the northern Indian Ocean suggests a strong connection in the propagation of climate signals between Antarctica and the Indian Ocean, probably through the Indonesian Throughflow and/or Subantarctic Mode Water”*

**Naidu and Govil (2010) [2] Abstract**

*“The transition from the Last Glacial Maximum to the Holocene was an interval of climate variability that was characterised by large spatial and temporal variations. Here we show that deglaciation warming*

*in the northern Indian Ocean was initiated ca. 19 ka, which is contemporary with deglaciation warming in the Antarctica and Southern Ocean. A gradual warming occurred during the glacial/Holocene transition in the northern Indian Ocean, unlike the two-step warming seen in Greenland and the North Atlantic. Synchronous deglacial warming ca. 19 ka in Antarctica and the northern Indian Ocean suggests a strong connection in the propagation of climate signals between Antarctica and the Indian Ocean, probably through the Indonesian Throughflow and/or Subantarctic Mode Water”*

Thus the Status Report by Gupta *et al.* contains serious flaws involving issues related to scientific ethics. Valdiya (2012) extensively discussed the issue of declining reputation of native geologists and lists several reasons and pointed towards forces which are both external to the geological sciences and also internal for such decline-in-reputation. The Gupta *et al.* stands-out as an example for self-inflicted reputational-decline of native earth scientists or internal forcing. Very few reputed researchers interested in self-promotion appear to hinder the healthy growth of earth science in India. Otherwise, Indian earth science community has several dedicated geologists who have been working hard to make India self-sustainable with respect to natural resources. They never chase the awards or rewards.

1. Gupta, A. K., Sinha, D. K., Singh, A. K., Naidu, P. D., Saraswat, R. And Rai, A. K., Indian contribution in the field of palaeoceanography (2006-2012)-Status Report. *Proc. Indian. Natnl. Sci. Acad.*, **78**, 313-319.
2. Naidu, P. D. And Govil, P., New evidence on the sequence of deglacial warming in the tropical Indian Ocean. *J. Quat. Sci.*, **25**, 1138-1143
3. Valdiya, K. S., The tragedy of being geologist. *Curr. Sci.*, 2012, **102**, 581-589.

## REPLY

Reply to the Comments of V K Banakar “Serious flaws in the status report on Indian palaeoceanography” by A K Gupta, D K Sinha, A K Singh, P D Naidu, Rajeev Saraswat, A K Rai

At the outset, we appreciate V K Banakar for being critical on the published *Status Report* on “Indian Contributions in the field of Palaeoceanography (2006-2012)” which was prepared for presentation at the IGC, Australia to make a case for bidding the IGC 2020 for India, which was achieved successfully.

We disagree with Banakar’s claim that the report contains flaws of serious nature. We outrightly reject these allegations. A Status Report summarizes a situation for a stipulated period or time. It basically provides information on the current position of a particular subject. The authors have tried to do their best by extracting information from publications by Indian scientists in peer reviewed journals. We also do not agree with Banakar that the fundamental requirement of comprehensive nature of a status report is “totally missing” in our report, since it contains 43 very important references in the field of palaeoceanography. It is true that while compiling such reports, some references may have left out but that was purely inadvertent. The authors had no intentions to exclude any relevant references and due to shortage of time it might have been possible that some important studies were unintentionally left out.

The second para of Banakar’s comments refers to our mentioning of DSDP, ODP and IODP while the status report contains a large number of studies from the cores collected by Indian workers under “harsh conditions” as stated by Banakar. We wish to state that we have nowhere mentioned in the report that the studies incorporated in the report are only from the DSDP/ODP or IODP cores. The first introductory paragraph (page 313) of our report has only highlighted the importance and history of the Deep Sea Drilling Project (DSDP) and its successors Ocean Drilling Programme (ODP) and Integrated Ocean Drilling Programme (IODP) which have

indeed been instrumental to promote the science of “paleoceanography”. Introduction to the kind of work incorporated in our “Status Report” begins with 2<sup>nd</sup> paragraph (page 313) where no mention of the DSDP/ODP or IODP has been made and only reference is made to the ocean sediments. See the first line of paragraph 2 “*The Science of paleoceanography essentially concerns with the evolution of ocean system through geological time essentially studied through ocean sediments which are generally not older than Cretaceous as a result of on going subduction*”. We are fully aware that a large number of cores have been collected by Indian workers on-board our own drilling vessels and as Banakar himself points out that “*status report incorporates several published papers, which are based on sediment cores collected by several Indian researchers on-board the Indian research vessels*”.

The third paragraph of Banakar’s comments again raises the question of not incorporating some references. Also he has mentioned the name of Naidu who has also commented in a personal email to Banakar that the report is selective and does not represent synthesis of palaeoceanography research in India. We cannot comment on the personal/informal discussion between Banakar and Naidu but so far as references are concerned, we have tried to include as many as we could and it was perhaps a coincidence that some or many of the referred papers were authored by one or the other authors of this report. We emphasize again that this was not a synthesis but a status (position) of palaeoceanographic work carried out in India during 2006-2012.

As Banakar’s remark regarding Naidu not being informed about his co-authorship and was not shown the final draft we wish to make following comments:

A detailed letter with three attachments containing Word doc files was sent to a number of scientists including P Divakar Naidu on 14<sup>th</sup> February, 2012 from INSA. Here we wish to state that the co-authorship was not decided by Gupta or Sinha but by INSA itself as follows (taken from one of the attachments):

“10. Palaeoclimate/Paleoceanography: Anil Gupta/R. Ramesh, Rajiv Saraswat/Devesh Sinha/PD Naidu/ARai”

As mentioned above, there was a time constraint in view of the IGC being held in Australia. It may not have been possible to frequently circulate the draft which could have been done by the Editor or even us otherwise. Since some of us did the hard work of compiling, editing, typing etc it's not in good taste for anyone to dissociate himself from the report (if Banakar's claim is true). Further we appreciate the great efforts made by the Editors in approaching a large number of scientists, countless number of requests, editing and ultimately compiling and winning the bid of IGC 2020 at Australia. As to the last point made by Banakar that “such reports could potentially lead to plagiarism” and violation of scientific ethics, we wish to state that this comment is totally uncalled for. We see no violation of scientific ethics, not leading to potential plagiarism since the paragraph has been copied from the abstract of a paper authored by Naidu himself who is an author of this report. Furthermore, we have given reference Naidu and Govil (2010) in the paragraph. Therefore, the authors (Naidu and Govil) have been given due credit for their original work with proper citation. We have taken care not to put our own words or not to change the text of their original abstract as it might have led to a distorted meaning, again raising many issues. We again reiterate that we have not written a paper in which we have tried to analyze the work but it is

listing of the work of the Indian scientists in palaeoceanography and the text of their abstract has not been altered and full citations has been provided in order to maintain the originality of the contribution. The title itself emphasizes that the report is enlisting contributions for a stipulated period of time and not a review work. We have not made any critical analyses of any paper neither we have changed the language of the text which has been quoted from the author's own abstract(s).

Quoting Valdiya (2012) here is out of context. We wish to state that we welcome suggestions, critical comments by anyone in the scientific world and that's how the science progresses. We are well aware of the scientific ethics and all that is written in the status report has been properly cited. How this status report amounted to self-inflicted reputation-decline and self-promotional exercise? Is it going to give us any publication credit? All of us are mature scientists having published our work in top ranking journals. The Earth Science community in India should appreciate that we and the Editors have spared valuable time to compile this report for the interest of our nation. Despite our explanations we reiterate that in preparing such a status report involving work of many scientists, some references may have been left out inadvertently. To conclude, we once again thank Banakar for pointing out some short comings and simultaneously state that many of the comments were uncalled for and we do not agree with them.