this question is being asked to know the relevance of the taxonomic study of fossil plants in today's context of human welfare and economic development programmes, because the institutions and projects are being funded by government agencies. The recent research publications on Indian palaeobotany deal with only a portion of bigger research projects, may be to increase the number of papers. As a result, the conclusions provided in them are of trivial nature. The publications will only have impact when comprehensive data are published with new inferences and conclusions. Other publications contain records of previously known fossil plants from a new locality, i.e. very little information to add to the fossils. To overcome these problems, painstaking fieldwork is required to find new and well-preserved fossils, which will help to understand floristic diversification, etc. Knowledge dissemination is another aspect. Science can only be popularized when information is passed to grassroots level, particularly to school students. To achieve this, mobile exhibitions are the best means. Mobile vans should visit schools in non-metropolitan cities and rural areas. The research projects must have some human utility orientation. Nowadays, the Indian scientific community is striving hard for new Intellectual Property Rights and biological patents law, particularly to save our useful and medicinal plants from being patented by others. To this, palaeobotanical studies can be of use, if we can identify and establish their existence in the geological past, particularly in the Quaternary and Tertiary sediments. Serious attempts are needed, particularly to record them in the Holocene. Maybe, many of these plants were being used in our country in the past. Likewise, today's alarming problems of climatic changes and global warming can be dealt with palaeobotanical studies. In India, palynological contributions have already been made, but other aspects are to be taken into account. One such aspect is to study the biological communities of Holocene, Tufa and Travertines. Changes in the biological community can help to understand the climatic and edaphic changes.

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Planting trees for C sequestration: A reality?

At the Open Science Conference of the IGBP held from 10 to 13 July 2001 in Amsterdam, there was much discussion and clarification by prominent global C experts on whether planting trees is a realistic option for enhancing terrestrial C sink[1]. A major question here is to what extent can we depend on it? Because it was shown recently that *ca.* 10^9 hectares of global natural ecosystems would be converted to agriculture by 2050, if we are to feed increasing human population[2]. Recently, the UNEP predicted that global warming would reduce cereal production[3], which would result in further conversion of natural ecosystems to agroecosystems. Under these circumstances, priority would automatically be given to planting food crops rather than planting trees. It is also estimated using climate models that the present terrestrial net C sink[4,5] would turn into a net source after 2050 (ref. 5). At this juncture, what can we do to enhance and sustain terrestrial C sink? We can increase C-sink strength in the remaining natural ecosystems and in the agroecosystems, for which their delicate management is needed. It is reported that forest soils are not likely to serve a major role as C sink, due to fast turnover rates of organic C (ref. 6), and limitations of tree growth imposed by soil fertility, particularly under elevated CO_2 (ref. 7). Agricultural activities are also not apparent to contribute to a net C sequestration[8]. With the agricultural expansion therefore, C sink brought about by deliberate actions would not contribute enough to the C sequestration. Instead, fragmentation of forests for agriculture would contribute to an additional C source due to biomass collapse of fragment edges[9]. However, soil faunal inoculation has been observed to increase C sink strength in the soils as well as in trees of the forests[10]. Similar effects of faunal inoculation can also be seen in agroecosystems, thus increasing crop production[11]. Foliar application of nutrients to the forest canopy using airplanes has been proposed to enhance the C sink[10], and it has several advantages: (a) It is important for efficient application of nutrients to increase nutrient use efficiency by plants, avoiding nutrient limitations; (b) It helps to conserve soil C stores, by slowing microbial decomposition[12], over direct soil application of nutrients; (c) It prevents any interruptions to plant C sequestration, which are caused by litter turnover[13]. However, it is important to time the foliar application of nutrients with plant growth and weather conditions.

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