Oh, Tehri Dam! Where are you leading us?

The Tehri Dam project is of such magnitude, and the attendant hazards and risks are so serious, that the people of India expect nothing less than suitably complete, detailed and objective investigations about the site, design and impact of the project. It is time for serious soul searching if some scientific investigations are not undertaken merely because the project may appear less than perfect if the findings are adverse. The interests of the people far outweigh the interests of the project.

This rhetoric and the lament of the title come to mind after reading a recent article in *Current Science* (Sahoo, P. K., Kumar, S. and Singh, R. P., 1998, **74**, 781–786). The article contains analyses of some remotely sensed data about the tectonics of the region between latitudes 29.52° and 31.18°N and longitudes 76.89° and 78.55°E. Reference to the Survey of India topographic map number 53J shows that the town of Tehri and, by inference, the Tehri Dam site fall within this area. There is no mention of the Tehri Dam project in the article, let alone a discussion of the implications of the analyses for the project.

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Cost of medicinal plants

Nowadays everyone is interested in knowing the actual source of the so-called minor forest products and the cost involved. The article 'How cheap can a medicinal plant species be?' by A. K. Gupta *et al.* (*Curr. Sci.*, 1998, **74**, 565) is indeed fascinating but does not mention synonyms as one of the causes for price variation. Also, there is a reference to Haslet(t) wherein the authors mention, 'At the individual species level, an average price paid to herb gatherers and small farmers for medicinal plants in the Peruvian Amazon forest is estimated at US $2.80 per kg, . . .', but I do not find the sentence in Haslett as claimed by the authors. Probably this reference might have appeared somewhere else.

I urge scientists to write more on the cost of the medicinal plants involved in polyherb preparations. This is because there are several problems associated with the use of polyherb preparations. Presence of toxic materials, quantitative variation of the constituents from batch to batch of the plant products and alleged admixing of allopathic medicines with the herbal formulations by the manufacturers have raised serious concern among the medicinal scientists about the safety of the patients.

The export potential of herbal and ayurvedic drugs (polyherb preparations) runs into billions of dollars. This export market has been under threat ever since the Govt of India prohibited the export of derivatives and value-added herbal formulations of 56 rare 'wild' plant species in 1995 (Appendix 2: Negative list of Exports of the Export & Import Policy, 1997–2002). Though this policy is laudable in its intentions, the problem calls for a holistic approach.

Though the government has prepared a list of classified herbs and asked that these plants be cultivated to boost exports, neither the government nor the exporting firms has taken specific responsibility for cultivating the threatened plant species under controlled conditions by giving due attention to the intrinsic and extrinsic factors affecting the production of secondary plant products.

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Response:

Cost of medicinal plants from the Amazon forest was given by Balick, 1994 (ref. 5) and it got misquoted while preparing the final manuscript. The error is regretted.

Shift from collection to cultivation of medicinal plants will ensure purity, authenticity and sustainable supply of raw material required for herbal drugs, including polyherbals. If growers are assured remunerative price and buy-back arrangements, many will take up large scale cultivation of these plants. To save the fast-dwindling natural resources, initiative is expected from herbal drug industry. Comprehensive standardization of herbal and ayurvedic drugs covering botanical, chemical and pharmacological aspects is most needed. Some scientists and industrial houses have recently taken up these challenges.

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