Watering the desert

India’s landscape is dotted with many success stories in the area of watershed development. And many of these initiatives are spearheaded by local communities that are supported by non-governmental organizations. This effort in some instances is technically supported by an academic or research institution or industrial bodies such as FICCI. Notable examples of this genre include the work of Sadguru in Dahod and adjoining districts of Gujarat, Pradhan in central India, M. S. Swaminathan Research Foundation and Dhan Foundation in Tamil Nadu, etc.

There are an equal number of initiatives that are not recognized. A good example in this category is the work that is being carried out by the Roman Catholic Diocesan Social Service Society (RCDSSS) since 2004. Located in the village of Madara near Ajmer in Rajasthan, this organization undertakes a number of good projects with technical support from academic institutions and Krishi Vigyan Kendra (KVK), Rajasthan.

The integrated watershed programme of RCDSSS is located in Rajoshi which is at a distance of 25 km from Madara. It includes 52 hamlets spread over 4120 ha. Within this, the watershed area is about 667 ha, and the project has been designed to benefit about 2070 ha. Land use includes irrigated area of 48 ha, unirrigated area of 2400 ha, uncultivated land of 640 ha and pastureland of 640 ha. Seventy-two hectares are held as community land and about 320 ha are forests that are heavily degraded. The principal driving factor is the unmet demand of wood for cooking, construction and for making of tools and implements.

The total population of Rajoshi is about 2300 representing various endogamous groups, and 80% of this population has a land holding of 2.5 acres of land. Thirty-three percent of the village migrates to the major cities of Rajasthan and Gujarat to work as labour. Temperature in the region varies from 4°C to 40°C, rainfall is irregular and is approximately 220 mm/year. Soils are sandy, clay and doamit and agriculture is rainfed. Water collected in ponds and small dug-out pits is insufficient and ground water level is below 700 ft and hence the numerous borewells that have been sunk have failed. Farmers are hence able to raise just one crop that is predominantly of bajra, maize and wheat. Supporting this are very small herds of cattle and goats that are free ranging. This in turn accelerates degradation of the common lands and the adjoining forests. Trapped in this cycle, the average monthly income of the village is a meagre Rs 650.00.

a. Bird’s eye view of the village. b. Village women constructing the bunds. c. New areas under cultivation.
Is Leptadenia reticulata a threatened species?

This is with reference to the article on morphogenesis of Leptadenia reticulata by Parabia et al.1

L. reticulata is a common roadside, weedy, perennial climber. Although some medicinal uses are indicated for this species in various texts of alternative systems of medicine, its use is not extensive to threaten its existence. However, the authors claimed that ‘it is now becoming a threatened/nearly extinct species’ and cited the 1997 IUCN Red List2 in support.

The threat status of a species should be determined according to IUCN guidelines, the two most important criteria being (a) that it should be based on quantitative data, and (b) that the entire range of global distribution should be taken into account. The terms rare, endangered, threatened, etc. should be used according to IUCN definitions and not loosely, and/or on the basis of personal perceptions. The term ‘nearly extinct’ has no scientific status and the term ‘extinct’ should be used extremely cautiously, as some species that were considered extinct have been rediscovered, as for example the Indian species Hubbardia heptaneuron.

The authors have cited the IUCN Red List2 to qualify their impression of the threat status of L. reticulata. We have compiled the Indian threatened species3 from the IUCN Red List2. We could not locate L. reticulata in either list. We are perplexed about the source of the authors’ information.

The merits of a piece of research lie in the right choice of the species, standard of the methods, correctness of conclusions drawn and more importantly, its contribution to advancement of science. Qualifying a species as an important or threatened medicinal plant does not enhance its value. Much worse is the situation when standard publications are carelessly or even deliberately mis-cited.


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No reply was received from Parabia et al. —Editors

Ash beds from the Himalayan Foreland Basin: Their nature and significance

This has reference to the discovery of volcanic ash bed from the Subathu Formation, near Kalka, Himachal Pradesh1. The authors appear to be ignorant about reports on many similar and related volcanic rocks and ash-bed occurrences from the Himalayan Foreland Basin (HFB)2–5. The ash bed near Kalka neither represents the oldest nor is it the only record of volcanic rocks from the Subathu Formation. The presence of a rhyolitic cherty breccia and tuff bed was recorded2 from the basal section of the Subathu Formation at Kanthan bridge on the Chenab River, Salal village, Jammu. The rhyolitic tuff is closely associated with the basal lat-