

## Grow natives

With the arrival of monsoon, drives for planting trees by NGOs and enthusiastic nature-lovers start throughout the country. This is a good activity as it spreads the message of greening and nature conservation to a spectrum of people. The Forest Department also plants a large number of saplings every year. The number of trees planted each year all over India will be in millions. But, it is seldom thought about what kind of trees need to be planted. If the list of saplings is scrutinized, it can be observed that only 10–15 species like Gulmohor (*Delonix regia*), Eucalyptus (*Eucalyptus* sp.), Australian acacia (*Acacia auriculiformis*), Gliricidia (*Gliricidia sepium*), Subabul (*Leucaena latisiliqua*) and Mangium (*Acacia mangium*) are planted all over India. The species which are easily available in the market, grow fast and give 'green' results, are purchased from nurseries and planted on hills, slopes, plateaus, in forests, on seashores or on the riversides. These exotic or non-native species have negative ecological and economic impact on our ecosystem. Still, people are planting thousands of non-natives during monsoon. This needs to be changed soon, before it gets too late. India harbours 17,527 species of flowering plants<sup>1</sup>, with a large pool of native arboreal species. Unfortunately, only a few indigenous species are commonly used for planting, whereas a large number of exotic species of foreign origin are planted. Native or indigenous plant species differ according to the various agro-

climatic zones of India. Right from the Himalayas, to the deserts of Rajasthan, to the semi-arid region of central Maharashtra to the evergreen forests of Kerala and mangroves of the Sundarbans, plant diversity keeps changing. Native species of a particular region are co-evolved with the local environment and form the base of food for local fauna (<http://tchester.org/sd/plants/importance.html>). They are most suited for the area in terms of soil conditions, micro-climate and topography.

Research has shown that introducing non-native species to an area has detrimental effects on the environmental conditions and local ecosystems<sup>2</sup>. These impacts include pollen allergy, suppressed regeneration of other species, which results in loss of native floral diversity of the country, disturbance and fragmentation of native ecosystems, etc.

The answer to this problem lies in planting native plants. As mentioned earlier, India has a great diversity in plants. There are fast-growing, sturdy plants suited for every plantation specification, they are pest-resistant, need less water inputs or fertilizers, are drought-proof and provide good habitat for local wildlife; they also have several aesthetic qualities making them good candidates for landscaping or beautification. Natives have application in all plant-related activities like tree farming, wildlife needs, forest plantations, energy plantations, oil-seeds, general plantations, avenues, beautification, food, etc.

This calls for a nation-wide movement to make planters, growers and the public aware of the natives and use them for betterment of ecology in the respective areas. So, there is a need for local individuals and nurseries to come forward and start working on natives in their vicinity. In addition to enhancing awareness, development of a database on the effects of invasive species, regeneration and germination studies of native species, and replacement of exotic species plantations with native species should be our primary aim.

1. Karthikeyan, S., In *Plant and Fungal Biodiversity and Bioprospecting* (eds Krishnan, S. and Bhat, D. J.), Goa University, 2009, pp. 19–30.
2. Hossain, M. K. and Pasha, M. K., In *Assessment and Management of Alien Species that Threaten Ecosystems, Habitats and Species*, UNEP, CBD Technical Series 1, 2001, p. 73.

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## Publications versus research: promotion of science or self

The University Grants Commission (UGC), New Delhi is charged with the responsibility of developing certain guidelines for appointments and promotions of teachers in universities and colleges to maintain academic norms. A recent rule introduces a point system based on faculty research publications. Publication in an 'indexed journal' would carry 5–10 points, whereas papers in journals with impact factor above 2 would carry 15 points. This will encourage publication of incomplete and rather

partial accounts of research in order to gain maximum points in the university and college system. A truly full length and high quality study will take some time to get published in a journal of high repute, compared to a large number of publications in ordinary journals. In the current context of assessment for promotion, numbers will help acquire more points. The present scheme of points by UGC is likely to promote some sort of misuse and abuse of the system of scientific publication.

There is need to maintain a good balance between research outcome and publications.

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